

CHAPTER 3 OPERATING INSTRUCTIONS FOR CGUN

Section I. PREPARATION FOR OPERATION

3-1. PRELIMINARY INSPECTION PROCEDURES.

Perform *Before* operation Operator/Crew Preventive Maintenance Checks and Services (PMCS) (see TM 9-6920-711-12&P-1).

3-2. OPERATIONAL CHECKS OF THE CGUN.

a. **Install Battery.**

(1) Loosen thumbscrew and open battery compartment door.

(2) Install battery in battery compartment. Ensure that battery terminals contact battery compartment terminals.

(3) Close battery compartment door and tighten thumbscrew.

b. **Check Battery.**

(1) Place mode switch in position 2. Pull trigger switch and check indicator light.

- (a) If indicator light stays lit, laser is firing.
- (b) If indicator light flashes, battery is low. Replace battery (see TM 9-6920-711-12&P-1).
- (c) If indicator light does not light, replace battery (see TM 9-6920-711-12&P-1).

3-2. OPERATIONAL CHECKS OF THE CGUN (Con't).

(2) Repeat step 1 with mode switch in positions 3 through 6.

(3) Return mode switch to position 1 (OFF).

c. **Laser Firing Check.**

WARNING

DO NOT aim and fire the CGUN directly at eyes at close range (5 meters). The CGUN laser is an eye-safe, Class I laser device (without laser safety restrictions); however, failure to follow this warning may result in injury to personnel.

NOTE

A laser firing check must be performed with a vehicle-mounted Tank Weapon Gunnery Simulation System (TWGSS)/Precision Gunnery System (PGS) or a TWGSS/PGS connected to an off-vehicle power supply.

(1) Aim CGUN at a TWGSS/PGS retro detector unit.

(2) Place mode switch in position 2.

(3) Pull trigger switch and check for flashing strobe light response from retro detector unit.

(4) Repeat procedure for mode switch in positions 3 through 6.

(5) Return mode switch to position 1 (OFF).

3-2. OPERATIONAL CHECKS OF THE CGUN (Con't).

d. Scope Alignment Check.

WARNING

DO NOT aim and fire the CGUN directly at eyes at close range (5 meters). The CGUN laser is an eye-safe, Class I laser device (without laser safety restrictions); however, failure to follow this warning may result in injury to personnel.

- (1) Place mode switch in position 3.
- (2) Select a firing position approximately 50 meters from a TWGSS/PGS-equipped vehicle.

NOTE

All other retro detector units must be covered.

(3) Looking through scope, locate and aim at one TWGSS/PGS retro detector unit. Allow for approximately one meter measurements in all directions.

(4) Beginning from a point one meter to the left of the retro detector unit, pull trigger switch and fire single shots. Stay even with the retro detector unit and slowly move aim point to the right.

(5) Stop firing when the first hit is registered by the retro detector unit flashing strobe light. Note the distance between scope reticle and retro detector unit.

(6) Repeat steps 3 through 5 from right side, top, and bottom of the retro detector unit. Measurements should be equal. If measurements are not equal, scope requires adjustment. Notify trained TWGSS/PGS troubleshooter or Training Support Center (TSC).

- (7) Return mode switch to position 1 (OFF).

Section II. OPERATION OF CGUN

3-3. CGUN FUNCTIONS AND RESULTS.

The CGUN mode switch is used to select CGUN functions by moving knob to desired positions:

a. **1 (OFF).** When the mode switch is in Position 1, battery power is not provided to the laser transmitter and laser output is not possible. Mode switch should always be in Position 1 when CGUN is not in use.

b. **2 (KILL).** When the mode switch is in Position 2, the laser transmitter is ready to fire. Pulling the trigger switch sends a KILL signal to a Tank Weapon Gunnery Simulation System (TWGSS)/-Precision Gunnery System (PGS)-equipped vehicle. The TWGSS/PGS-equipped vehicle responds to a CGUN KILL signal with a continuous flashing strobe light and an audible tone through the vehicle intercom for 30 seconds.

c. **3 (TEST).** When the mode switch is in Position 3, the laser transmitter is ready to fire. Pulling the trigger switch sends a TEST signal to a TWGSS/PGS-equipped vehicle. The TWGSS/PGS-equipped vehicle responds to a CGUN TEST signal with a flashing strobe light for one second, indicating an operational system. The CGUN TEST function may also be used to check MILES components; however, the range from the CGUN to the MILES component being tested is greatly reduced as compared to TWGSS/PGS components.

d. **4 (ENABLE CONTROL).** When the mode switch is in Position 4, the laser transmitter is ready to fire. Pulling the trigger switch sends an ENABLE CONTROL signal to a TWGSS/PGS-equipped vehicle. This allows the training controller access to the TWGSS/PGS control panel functions. The TWGSS/PGS-equipped vehicle responds to an ENABLE CONTROL signal with a flashing strobe light for one second, after which the training controller is able to access the control panel and perform the following functions:

3-3. CGUN FUNCTIONS AND RESULTS (Con't).

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- (1) Set date and time.
 - (2) Select training mode.
 - (3) Set number of ammunition rounds for main gun, coax, and missile (as applicable).
 - (4) Move ammunition from hull to turret.

e. **5 (RESET).** When the mode switch is in Position 5, the laser transmitter is ready to fire. Pulling the trigger switch sends a RESET signal to a TWGSS/PGS-equipped vehicle. This restores a killed vehicle and reloads a basic load of ammunition. The TWGSS/PGS-equipped vehicle responds to a RESET signal with a flashing strobe light for one second.

f. **6 (TIME MARK).** When the mode switch is in Position 6, the laser transmitter is ready to fire. Pulling the trigger switch sends a TIME MARK signal to a TWGSS/PGS-equipped vehicle. This stores the time of day on the Training Data Retrieval System (TDRS) memory card. The TWGSS/PGS-equipped vehicle responds to a TIME MARK signal with a flashing strobe light for one second, indicating the time mark is received and stored. This function allows the training controller to mark an activity, event, or After Action Review (AAR) retrieval.

3-4. OPERATING PROCEDURES.

WARNING

DO NOT aim and fire the CGUN directly at eyes at close range (5 meters). The CGUN laser is an eye-safe, Class I laser device (without laser safety restrictions); however, failure to follow this warning may result in injury to personnel.

a. Place mode switch in one of the following positions: 2 (KILL), 3 (TEST), 4 (ENABLE CONTROL), 5 (RESET), or 6 (TIME MARK).

3-4. OPERATING PROCEDURES (Con't).

b. Looking through scope, locate and aim at one retro detector unit mounted on a TWGSS/PGS-equipped vehicle. The vehicle must be within 2000 meters.

c. Fire CGUN by pulling trigger switch ONE time for each function. Do not hold trigger switch or multiple signals will be transmitted.

d. Return mode switch to position 1 (OFF) when CGUN is not in use.

3-5. PREPARATION FOR STORAGE.

a. Remove Battery.

(1) Loosen thumbscrew and open battery compartment door.

(2) Remove battery from battery compartment.

(3) Close battery compartment door and tighten thumbscrew.

b. Perform *After* operation Operator/Crew Preventive Maintenance Checks and Services (PMCS) (see TM 9-6920-711-12&P-1).

c. Store CGUN in storage case.